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# HOLOPHANE CONTROLENS LIGHTING

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## CONTINUOUS FIXTURES
## CONTINUOUS TROUGHS

For General Lighting and for Specific Lighting Applications such as Picture Galleries, Rug Displays, Blackboards, Hospital Surgeries, etc.

ALSO

**X-RAY VIEWING BOXES AND NIGHT LIGHTS**

Numerical Index, See page 96

Specialized Store, Bank and Office Lighting, see Section A.
Modern Architectural Lighting, see Section B.

GARCY REFLECTORS

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A DIVISION OF
GARDEN CITY PLATING & MFG. CO. 1420-30 SO. TALMAN AVE. CHICAGO, ILL.

A.I.A. File 31f

# GENERAL INFORMATION

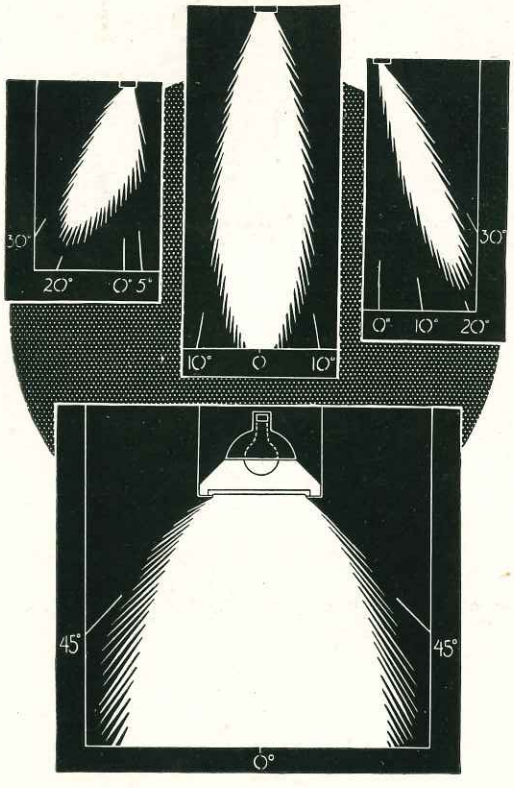
## HOLOPHANE CONTROLENS EQUIPMENT

### LIGHT DISTRIBUTIONS

Lens equipment is designed to control light—to give the exact light distribution required for each installation. Light may be concentrated over a limited area or spread widely, projected at right angles to the face of the lens or offset to one side. The illustration at right shows some of the possible beam distributions.

### HIGHER INTENSITIES

Definite control of light results in much higher intensities for the same wattage than can be obtained from other fixtures.



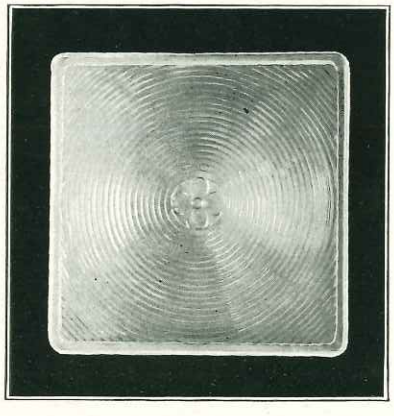

Typical light distributions with Controlens equipment.

### EACH INSTALLATION INDIVIDUALLY ENGINEERED

Proper spreads, offsets and intensities for any particular installation are assured only by correct selection and setting of lamps, reflectors and controlenses. Each installation, therefore, requires its own particular relationship of these parts, and must be engineered individually to obtain the desired results.

Orders and inquiries should be accompanied by complete information as to layout of space to be illuminated, proposed location of fixtures and effects desired. If standard fixtures are not practical, GARCY designers will be glad to submit special designs for consideration.

### HOLOPHANE CONTROLENSES



Holophane controlenses are available in various types and sizes. The sizes generally used are 6½", 8½" and 12" square. GARCY engineers will gladly recommend the proper size and type for any lighting project.

### REFLECTORS

Shallow fixtures (with lamps parallel with lenses) are generally equipped with continuous reflecting surface; deep fixtures (with lamps perpendicular to lenses) are generally equipped with individual reflectors for each lamp. The latter type is more efficient and is recommended except where space limitations do not permit its use. See illustrations on next page.

### LAMPS

Fixtures are furnished with one socket for each lens, arranged so that lamps of a definite size will be correctly focused to give the beam distribution required. Substitution of a lamp size other than the one for which fixture is designed will result in changing the focus and, consequently the light distribution from that intended. However, the following substitutions may be made with none, or only a slight, change in light distribution.

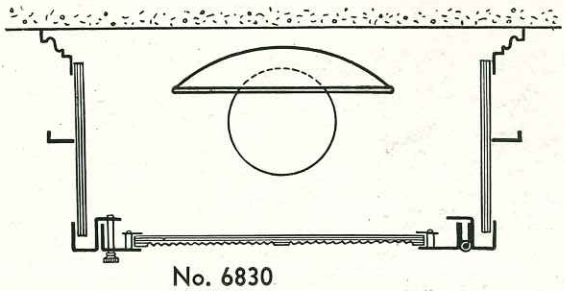
| Substitution (Type A or PS lamps) | Distributional Change |
|---|---|
| *25 instead of 60 watt | None |
| *40 instead of 75 watt | Slight |
| *60 instead of 100 watt | Slight |
| *100 instead of 150 watt | None |
| *150 instead of 200 watt | Slight |
| 300 instead of 500 watt | None |
| 500 instead of 300 watt | None |

*Use with 7/8" socket extension

# HOLOPHANE CONTROLENS LUMINAIRES

## FLUSH-RECESSED, EXPOSED AND SEMI-EXPOSED TYPES

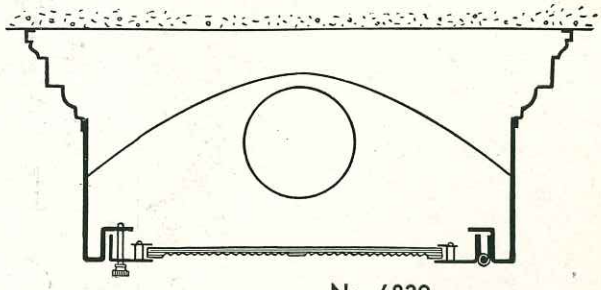
FIXTURES ILLUSTRATED ON NEXT PAGE



No. 6830

### EXPOSED TYPE — OPAL GLASS SIDES

Also shows hinged frame, lamps horizontal, individual reflectors, horizontal metal fin.

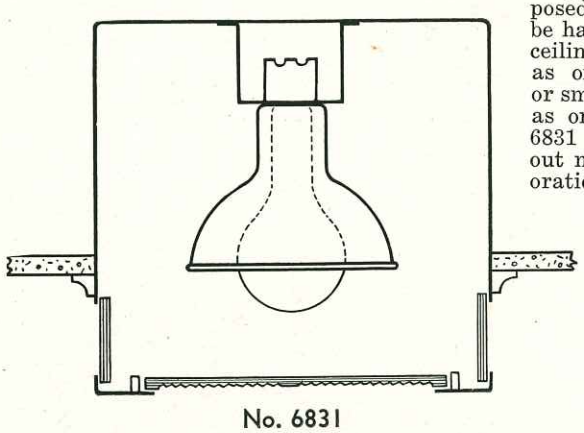


No. 6829

### EXPOSED TYPE — METAL SIDES

Also shows hinged frame, lamps horizontal, continuous type reflector.

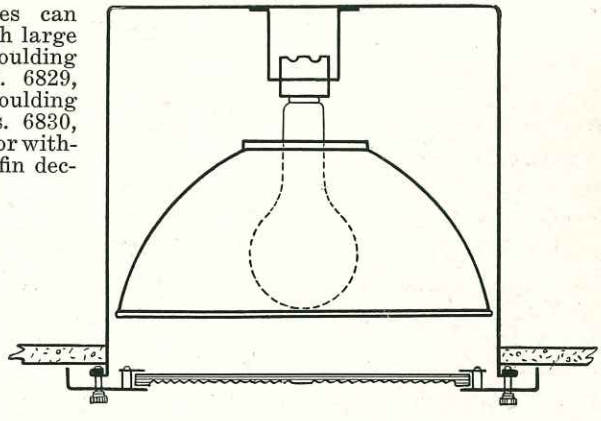
Any type can be furnished with lamps vertical or horizontal, with one or more lenses in square or rectangular arrangements. Exposed types can be had with large ceiling moulding as on No. 6829, or small moulding as on Nos. 6830, 6831 with or without metal fin decoration.



No. 6831

### SEMI-EXPOSED TYPE

Metal box above ceiling, opal glass sides below ceiling. Also shows fixed bottom, lamps vertical, Alzak-processed individual reflectors.



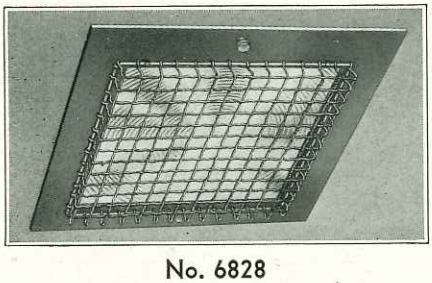
No. 6832

### FLUSH-RECESS TYPE

Also shows removable bottom, lamps vertical, Holophane, prismatic glass, individual reflectors.

### WIRE GUARDS

To protect controlenses and other glass. Made of heavy gauge steel wire, rust proof finish.



No. 6828

Guards can be furnished with any luminaire. Guards are hinged to permit easy access to glass.

### TO SPECIFY:—

**6½" x 6½" CONTROLENSES**, place **A** before number.

**8½" x 8½" CONTROLENSES**, place **B** before number.

**12" x 12" CONTROLENSES**, place **C** before number.

**HINGED DOORS**, as shown on Nos. 6829, 6830, place **H** before number.

**FIXED BOTTOM**, as shown on No. 6831, (lenses can be slid over each other or removed through diagonal of opening), place **F** before number.

**REMOVABLE BOTTOM**, as shown on No. 6832, place **R** before number.

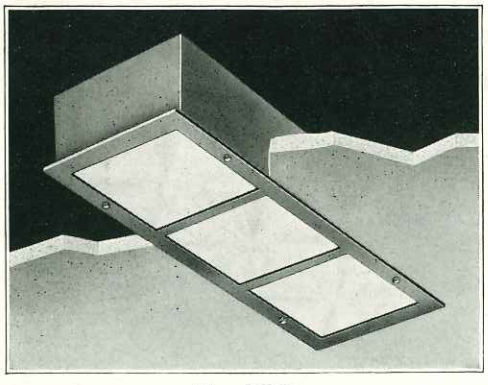
### REFLECTORS

Various types of reflectors, as shown above, are available. GARCY will recommend and furnish the type most suitable for each particular application.

# HOLOPHANE CONTROLENS LUMINAIRES

SEE TYPICAL SECTIONS OF THESE FIXTURES ON PRECEDING PAGE

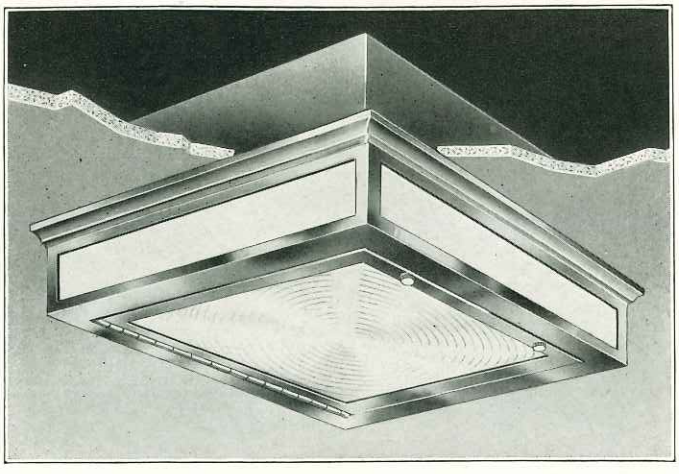
All fixtures must be engineered to obtain correct setting of lamps, reflectors and lenses and insure proper light distribution. Let GARCY engineers work out your lighting problem.



No. 6832

FLUSH-RECESSED FIXTURE

Illustration shows fixture with three lenses.



No. 6831

SEMI-EXPOSED FIXTURE—OPAL GLASS SIDES

Illustration shows fixture with one lens.

When specifying fixtures, please indicate:

1. Catalog number.
2. Number, size and arrangement of controlenses.
3. Type of bottom—hinged, fixed, or removable.
4. Shallow type (lamps horizontal) or deep type (lamps vertical).
5. Large or small ceiling moulding, if exposed types.
6. With or without decorative fins, if exposed types.

## FIXTURE SIZES

Actual sizes of fixtures are developed only after lamp size, light distribution, etc, have been determined from a study of the particular lighting project. GARCY engineers will work out your lighting problem without charge or obligation.

## SPECIFICATIONS

**EXTERIOR:** Exposed metal is brass, statuary bronze plated. Also available in steel, aluminum, nickel silver or other metals, any spray or plated finish.

**RECESS BOX:** Made of heavy gauge steel, sprayed finish.

**SIDE GLASS PANELS:** Made of opal glass. Can also be furnished of Silverite or any other glass.

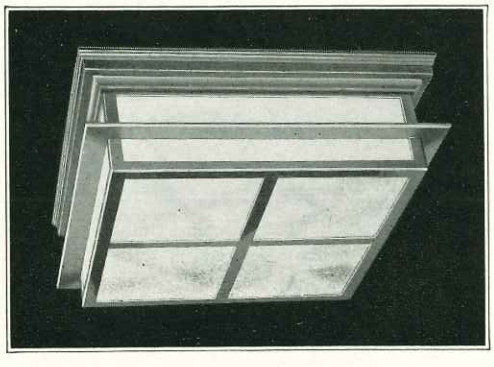
No. 6830

EXPOSED FIXTURE OPAL GLASS SIDES

Furnished with or without horizontal fin. Illustration shows a four-lens, square fixture.

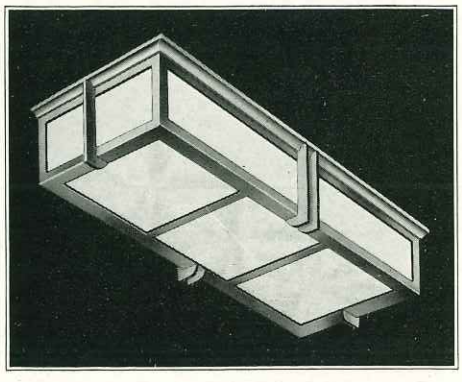
No. 6829

As above with metal sides, and without horizontal fin.



No. 6834

Exposed or semi-exposed fixtures, same as above, except with vertical fins. Vertical fins can be furnished with any luminaire design.



# HOLOPHANE CONTROLENS LUMINAIRES

Designs on this page are similar in purpose and general construction to the fixtures on the preceding page. Orders and inquiries should give all information as listed for fixtures on preceding page.

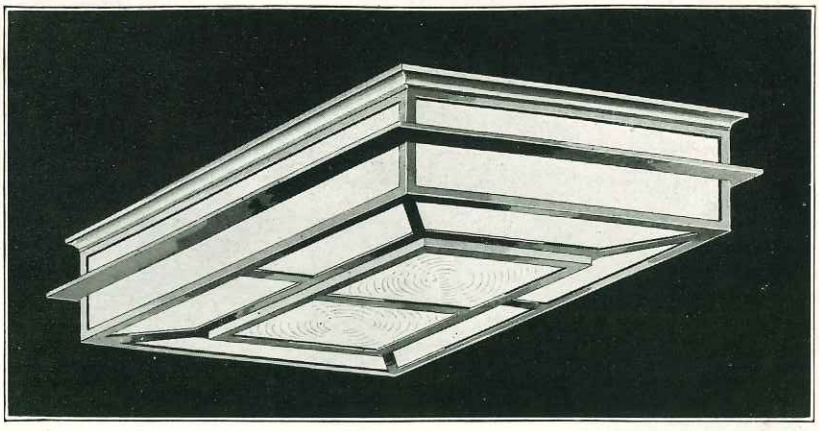
Border and auxiliary panels, surrounding the controlenses in the bottom face of the fixtures on this page are diffusing glass (flashed opal, unless otherwise specified).

Fixtures can be furnished with any number or arrangement of controlenses in flush-recess, semi-exposed or exposed types.

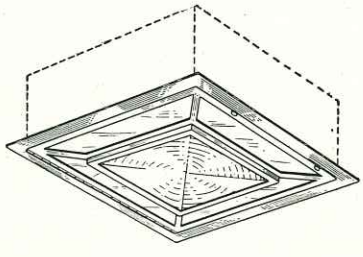
When specifying fixtures, please indicate:

1. Catalog number.
2. Number, size and arrangement of controlenses.
3. Flush-recessed, exposed or semi-exposed.
4. Type of bottom—hinged, fixed or removable.
5. Shallow type (lamps horizontal) or deep type (lamps vertical).
6. Large or small ceiling moulding if exposed types.

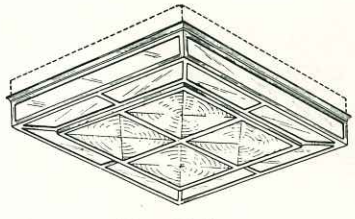
Data on above, see preceding pages.



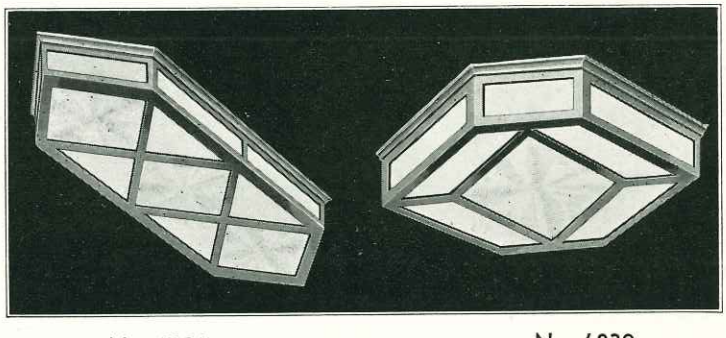
No. 6840
EXPOSED FIXTURE



No. 6842
FLUSH-RECESSED FIXTURE

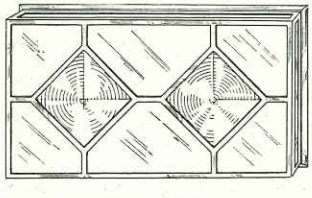


No. 6841
SEMI-EXPOSED FIXTURE

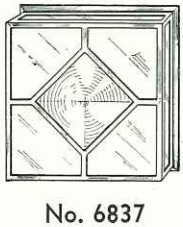


No. 6838

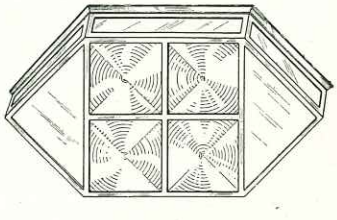
No. 6839



No. 6836



No. 6837



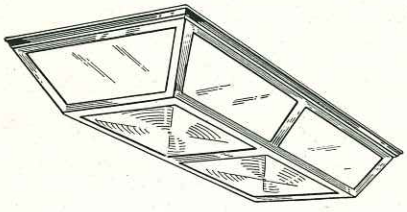
No. 6835

# HOLOPHANE CONTROLENS LUMINAIRES

## APPLIED AND SUSPENDED TYPES

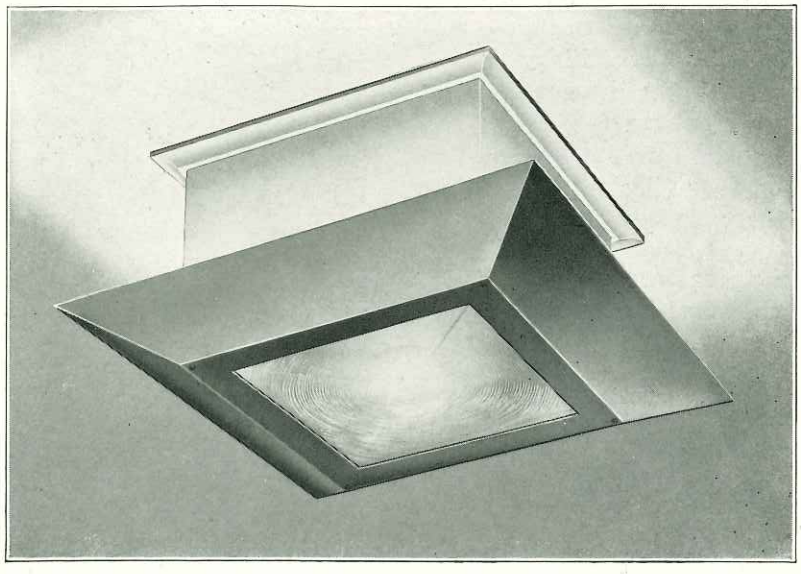
Fixtures on this page, like those on the preceding pages, can be furnished:

1. With any number of 6½", 8½" or 12" controlenses in various arrangements.
2. With bottom hinged, fixed or removable.
3. With lamps horizontal or vertical.



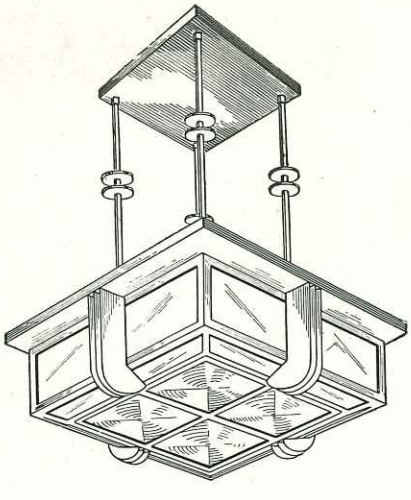
No. 6845

Holophane controlenses in bottom, sloped opal glass sides.



No. 6847

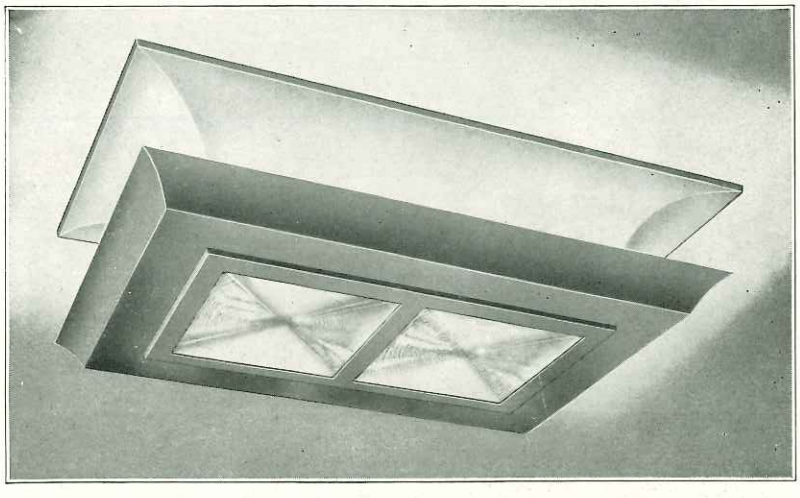
Fixture with metal sides. Holophane controlenses in bottom for control of direct light. Spill light, through concealed openings, illuminates sides of fixture and ceiling.



No. 6846

Suspended fixture with Holophane controlenses and opal glass sides with vertical fins and stem hangers.

Any exposed type luminaire can be furnished for ceiling suspension. Various styles of hangers are shown on page 61



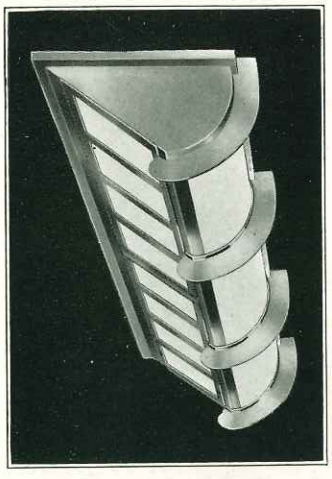
No. 6848

Holophane controlenses in bottom, tubular lamps concealed in apron illuminate fixture and ceiling.

# LIGHTING VERTICAL SURFACES

## CONTINUOUS FIXTURES WITH HOLOPHANE CONTROLENSES

These fixtures provide diffused general illumination as well as controlled light for wall displays.



No. 6890

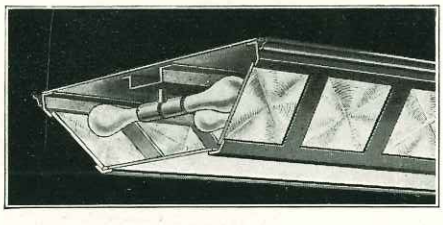
### No. 6890

A decorative exposed fixture with lenses on the wall side and round diffusing glass with cast aluminum fins on the room side.

As illustrated, fixture is 15⅜" wide, 9¾" high, 5' 6" long with 8 controlenses in hinged doors. Other sizes can be furnished.

No. 6890 fixture installed in a theater lobby.

*Pereira & Pereira, Archts.*



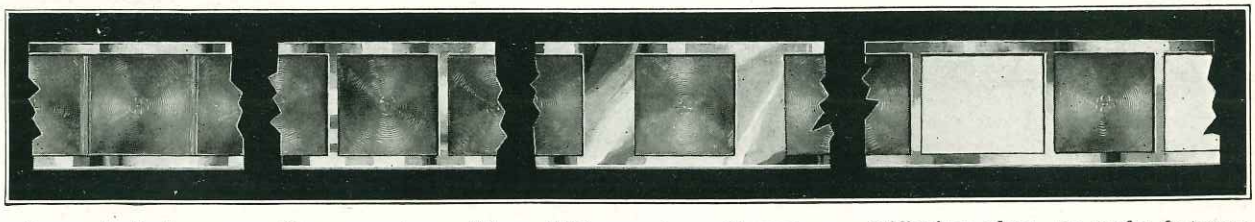
No. 6892

### No. 6892

This type of fixture in continuous lengths is particularly effective for illuminating displays on both walls of a narrow gallery. Controlenses on either side illuminate the displays, diffusing glass bottom provides general illumination.

## SPACING OF LENSES

Continuous type fixtures can be had with lenses spaced as close or far apart as desired. Several suggestions are illustrated.



Lenses butted, no divisions.

Close spacing with ½" metal divisions.

Wide spacing with metal divisions any width required.

Diffusing glass panels between lenses, ½" metal divisions between lenses and glass panels.

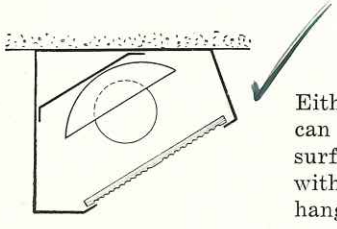
# LIGHTING VERTICAL SURFACES

## CONTINUOUS TROUGHS WITH HOLOPHANE CONTROLENSES

Because of its flexible beam characteristics, Holophane controlens equipment offers decided advantages for vertical surface lighting. However, troughs with open face, with louvers or with diffusing glass are also used.

Any controlens trough can also be furnished open face, louvered, or with diffusing glass—likewise any louvered or diffusing glass reflector can also be furnished with controlenses. Typical louver and diffusing glass troughs, see pages 22, 23, 35.

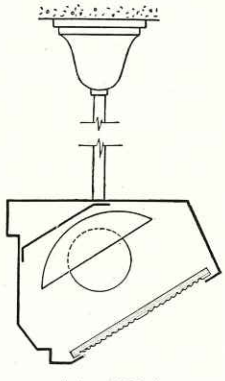
Good picture lighting with No. 6896 suspended trough.



**No. 6895**

Plain front, shown surface mounted.

Either of these troughs can be furnished for surface mounting or with stem or chain hangers for ceiling suspension.



**No. 6896**

Moulding front, shown suspended.

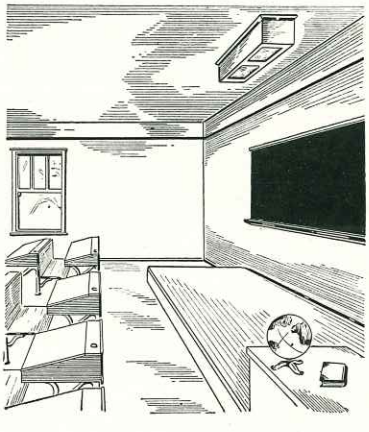
### SPECULAR SURFACES

To avoid annoying reflections, sheen, haze, and glare on surfaces such as blackboards, pictures or glass covered exhibits, it is necessary to locate the light source fairly close to the wall. With most equipment, such placement results in a considerable shading of brightness from the top to the bottom of the illuminated surface. Holophane controlenses, however, produce even, full-height lighting.

### ENGINEERING SERVICE

When requesting proposals or recommendations, indicate preference as to style of fixture and structural features as listed on pages 86, 87. Also give all available details including dimensions and character of space to be illuminated.

### BLACKBOARD ILLUMINATION

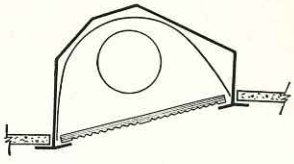


The two-lens fixture in the sketch at left is the No. 6829 exposed type on page 58 with sockets set to give correct distribution of light to illuminate the blackboard evenly without haze or glare.

Any of the troughs on this or the next page or fixtures on pages 87 and 88 can be furnished for blackboard illumination.

# LIGHTING VERTICAL SURFACES

## CONTINUOUS TROUGHS WITH HOLOPHANE CONTROLENSES



**No. 6899**

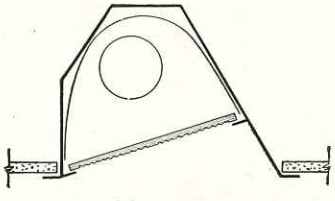
Flush-recessed trough for offset ceiling.

At left—

French Institute in the U. S.,
New York City

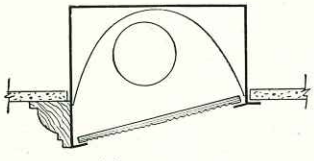
*Hood & Fouilhoux, Architects*

Troughs similar to No. 6899 in an offset ceiling light this gallery.



**No. 6898**

Flush-recessed trough.



**No. 6897**

Partly recessed trough.

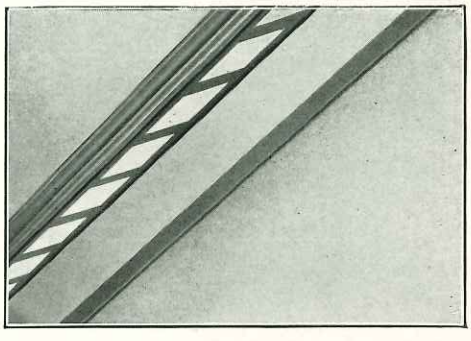
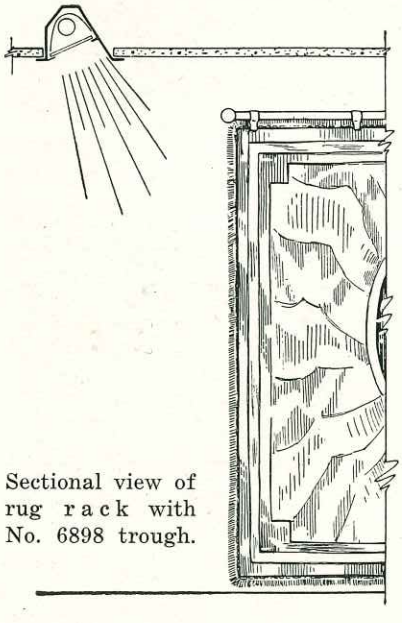


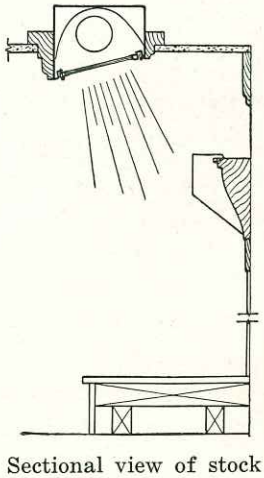
Illustration shows appearance on ceiling of No. 6897 partly recessed trough.



Sectional view of rug rack with No. 6898 trough.

Controlenses offer the most effective means of efficiently and accurately directing light to vertical surfaces without glare or reflections. To insure perfect results, trough design is modified for each individual installation, with controlenses, lamps and reflectors in correct setting to produce the intensity, direction and spread of beam required for the particular installation.

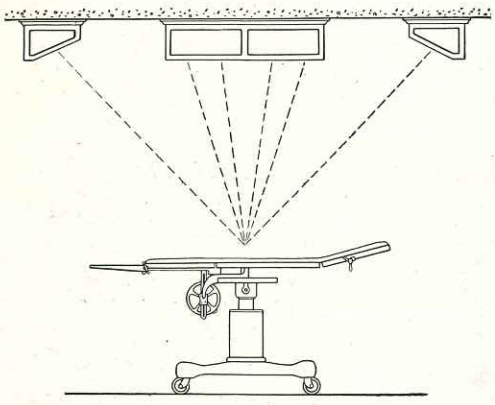
GARCY engineers will gladly submit a complete layout if drawings showing plan and elevation are submitted.



Sectional view of stock quotation board with No. 6897 trough.

# HOLOPHANE CONTROLENS LIGHTING

## FOR HOSPITAL SURGERIES, DENTAL CHAIRS, ETC.

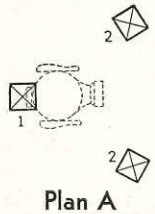


Sectional view of Plan C, shown below, illustrates how individual beams from the controlenses converge upon the operating table.

Holophane Controlens surgical illumination provides a number of converging light beams from lens sources grouped around the operating site, to produce a high intensity spot on the operating area; at the same time, providing an adequate amount of diffused light throughout the room. The light is glareless and comfortable, without shadows or heat. The light sources are well outside the zone of explosion hazard and the system is not subject to the danger of lamp failure as with one-lamp devices. Any fixture type illustrated is furnished in one-lens or multiple lens units.

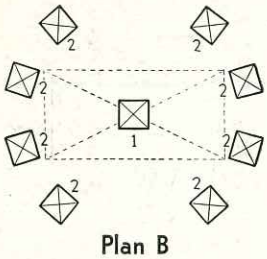
### CONTROLENS SYSTEMS

Systems can be arranged with any number of lenses. Various mounting heights and fixed focus construction make it necessary that each installation be individually engineered. Plans showing all room dimensions should be submitted for correct layout.



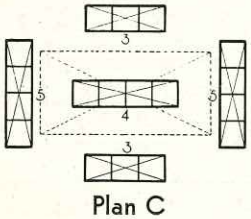

**Plan A**

3 lens dental system.




**Plan B**

9 lens surgical system.




**Plan C**

18 lens surgical system.

### KEY TO PLANS

**1**

One-lens unit. Use type Nos. 6911, 6913, or 6915.

**2**

One-lens unit. Use type Nos. 6910, 6912 or 6914.

**3**

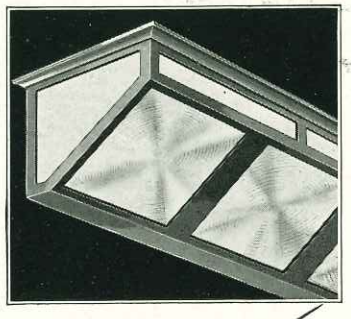
Three-lens unit. Use type Nos. 6910, 6912 or 6914.

**4**

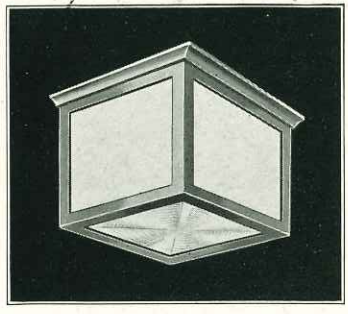
Four-lens unit. Use type Nos. 6911, 6913 or 6915.

**5**

Four-lens unit. Use type Nos. 6910, 6912 or 6914.

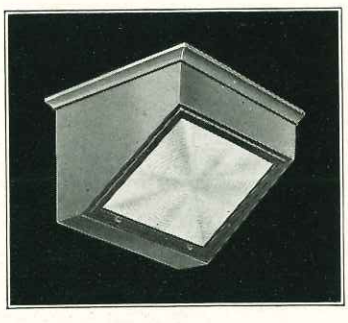


No. 6910

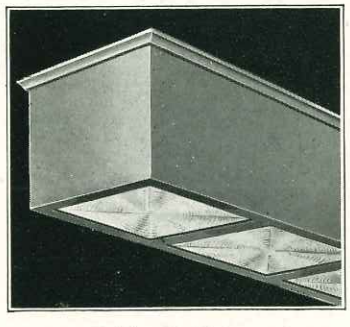


No. 6911

Exposed type, diffusing glass in sides for ceiling illumination.

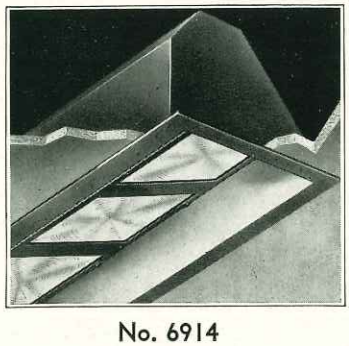


No. 6912

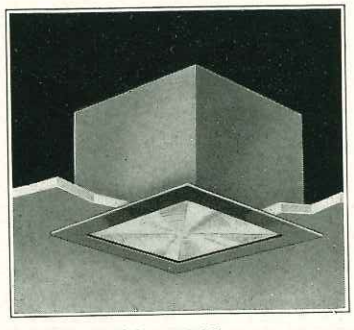


No. 6913

Exposed type, metal sides.



No. 6914



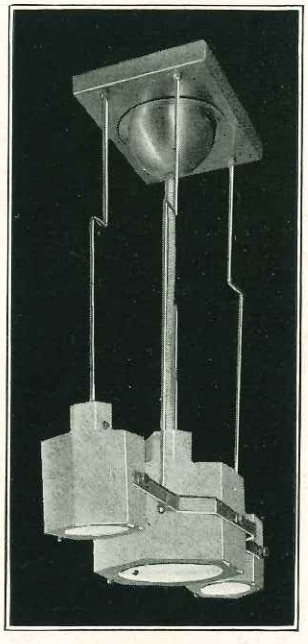
No. 6915

Recessed type.

# HOSPITAL LIGHTING

## EXAMINING AND OPERATING ROOM LIGHTING

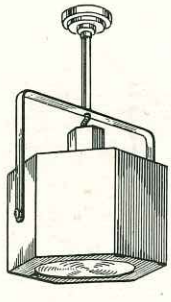
### WITH HOLOPHANE CONTROLENSES



No. 6916

Fixture consists of three hexagonal controlens boxes suspended from a ceiling plate. Each box is swivel mounted to permit focusing of all three beams on one spot or spreading them over a larger area as required. Recommended for examinations and minor surgeries.

Bottom of each box is hinged, for lamp access. Can be furnished with pull-cord switch to control all boxes or individual switch on each box if desired.



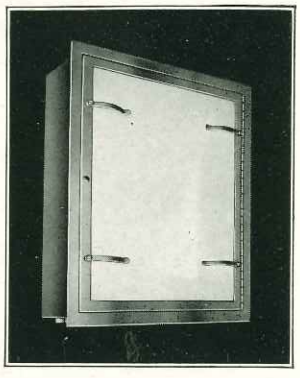
No. 6917

Individual, swivel-mounted, suspended, hexagonal box with controlens. This unit may be used to form the systems described on the preceding page.

Direction of each light beam is easily adjusted after installation, avoiding the necessity for separately engineered socket settings for each lens, and providing a flexible system that is easily changed when required.

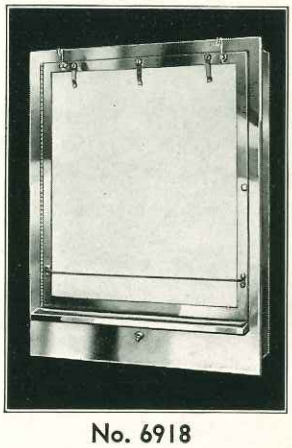
## X-RAY FILM VIEWING PANELS

Opal glass panels for 14"x17" film in a hinged frame, with a finishing flange for flush-recessed mounting, and a metal recess box equipped with diffuse reflector and four sockets for tubular lamps.



No. 6919

Has spring clips on sides to hold film to glass. If preferred, clips can be furnished at top. Recess box is 16¼" wide, 19⅛" high, 4" deep. Front is 17¾" wide, 20¾" high. Standard finish of front is nickel plated.

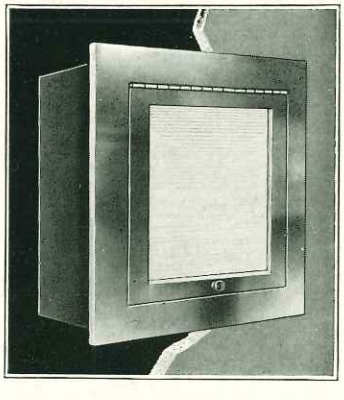


No. 6918

Has spring clips for dry films—hooks, guard rail and drip pan for wet films — and explosion proof switch. Recess box is 16¼" wide, 22-1/16" high, 4" deep. Front is 17¾" wide, 23⅝" high. Standard finish of front is polished chromium.

These items can also be furnished for other film sizes or with two or more panels for simultaneous handling of several films.

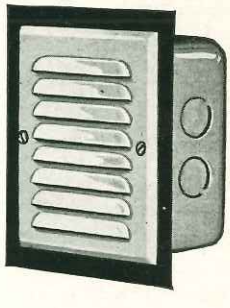
## NIGHT LIGHTS



No. 6920

Controlens in hinged frame directs the light across the floor. Socket has focusing adjustment to give correct distribution at various mounting heights.

Recess box is $8\frac{5}{16}$" square, 3¼" deep, aluminum sprayed Front is 10" square, made of steel, cadmium plated. Any other metal or finish can be furnished.



No. 6921

Removable louvered front conceals lamp and directs light toward floor.

Recess box is 4¾" square, 2⅛" deep. Has chromium reflecting surface. Front is 6" square, made of steel finished white enamel baked on. Any other finish can be furnished.

# OTHER GARCY LIGHTING EQUIPMENT

SHOWN IN SECTIONS A and B, CATALOG 36

RETURN TO DESIGN DIV.

## REFLECTORS AND LIGHTING EQUIPMENT FOR STORES BANKS OFFICES

Write for SECTION A

DISPLAY CASE REFLECTORS

SHOW WINDOW REFLECTORS

FITTING MIRROR LIGHTING

SHELVING, TABLE or WALL DISPLAY LIGHTING

BANK AND COUNTER SCREEN LIGHTING

REFLECTORS FOR WORK TABLES, DESKS, FILING CABINETS, PICTURES, ETC.

## MODERN ARCHITECTURAL LIGHTING

Write for SECTION B

Lighting equipment that harmonizes with modern architecture, combining effective lighting with wide applicability and economical installation.

COVE and SUSPENDED INDIRECT TROUGHS

APPLIED, RECESSED and SUSPENDED FIXTURES

LUMILINE LAMP FIXTURES

CONTINUOUS LIGHTING ELEMENTS

DIRECTIONAL SIGNS AND EXIT BOXES

RETURN TO DESIGN DIV.

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